CLAIMS:

1. A method for preparing a bis(halophthalimide) which comprises combining at a temperature of at least 110 ° C.:

at least one halophthalic anhydride;

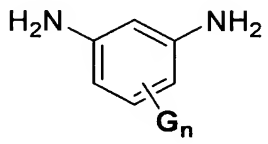
a 1,3-diamine having at least one substituent ortho to one of its amine functionalities;

an organic liquid having a polarity no higher than that of o-dichlorobenzene, dichlorotoluene, 1,2,4-trichlorobenzene, diphenyl sulfone, anisole and veratrole; and

obtaining the bis(halophthalimide).

2. The method of claim 1 wherein the combining step further comprises combining at least one halophthalic anhydride selected from the group consisting of substantially pure 3-chlorophthalic anhydride and 3-chlorophthalic anhydride combined with another phthalic anhydride selected from the group consisting of 4-chlorophthalic anhydride, dichlorophthalic anhydride, phthalic anhydride, and mixtures thereof.

3. The method of claim 1 wherein the combining step further comprises combining a 1,3 diamine of the formula



where n is 1 to 4, G is selected from the group consisting of -R, -OR, -SR, -Ar, -OAr, -SAr, and –CN, and R is selected from the group consisting of C_1 to C_{30} aliphatic hydrocarbons, C_1 to C_{30} unsaturated cycloaliphatic hydrocarbons, and aralkyl hydrocarbons.

4. The method of claim 1 wherein the combining step further comprises combining anhydride to diamine at a molar ratio of from about 1.98:1 to about 2.04:1.

5. The method of claim 1 wherein the combining step further comprises combining anhydride to diamine at a molar ratio of about 2:1.

6. The method of claim 1 wherein the combining step further comprises combining an organic liquid selected from the group consisting of o-dichlorobenzene and anisole.

7. The method of claim 1 wherein the combining step further comprises combining 3-chlorophthalic anhydride with the 1,3-diamine and the organic liquid.

8. The method of claim 1 further wherein the combining step further comprises combining an imidization catalyst with the at least one halophthalic anhydride, the 1,3-diamine, and the organic liquid.

9. The method of claim 8 wherein the combining step further comprises combining an imidization catalyst selected from the group consisting of sodium phenyl phosphinate, acetic acid, benzoic acid, and phthalic acid.

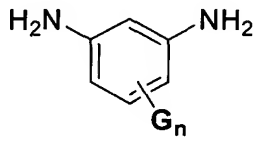
10. The method of claim 1 wherein the combining step further comprises combining a phthalic anhydride to produce a halophthalimide capable of acting as an end-capping monomer.

11. A method for preparing a bis[N-(3-chlorophthalimide)] derivative of a diamine made by contacting at a temperature of at least 110 ° C. a 3-chlorophthalic anhydride with a 1,3-diamine having at least one substituent ortho to one of its amine functionalities in the presence of an organic liquid having a polarity no higher than that of o-dichlorobenzene, dichlorotoluene, 1,2,4-trichlorobenzene, diphenyl sulfone, anisole and veratrole.

12. The method of claim 11 wherein the combining step further comprises combining the 3-chlorophthalic anhydride with another phthalic anhydride selected

from the group consisting of 4-chlorophthalic anhydride, dichlorophthalic anhydride, phthalic anhydride, and mixtures thereof.

13. The method of claim 11 wherein the combining step further comprises combining a 1,3 diamine of the formula



where n is 1 to 4, G is selected from the group consisting of -R, -OR, -SR, -Ar, -OAr, -SAr, and –CN, and R is selected from the group consisting of C_1 to C_{30} aliphatic hydrocarbons, C_1 to C_{30} unsaturated cycloaliphatic hydrocarbons, and aralkyl hydrocarbons.

14. The method of claim 11 wherein the combining step further comprises combining the anhydride to the diamine at a molar ratio of from about 1.98:1 to about 2.04:1.

15. The method of claim 11 wherein the combining step further comprises combining the anhydride to the diamine at a molar ratio of about 2:1.

16. The method of claim 11 wherein the combining step further comprises combining an organic liquid selected from the group consisting of o-dichlorobenzene and anisole.

17. The method of claim 11 wherein the bis[N-(3-chlorophthalimide)] derivative is selected from the group consisting of 2,4- bis[N-(3-chlorophthalimido)]toluene, 2,6-bis[N-(3-chlorophthalimido)]toluene, 2,4-bis[N-(3-chlorophthalimido)]-3,5-diethyltoluene, and 2,6-bis[N-(3-chlorophthalimido)]-3,5-diethyl toluene.

18. A method for preparing an aromatic polyether polymer which comprises combining the bis[N-(3-chlorophthalimide)] derivative of a diamine produced in accordance with the method of claim 11 with at least one alkali metal salt of a dihydroxy-substituted aromatic compound in the presence of a phase transfer catalyst,

and obtaining a polyether polymer wherein the resulting polyether polymer has reduced levels of cyclic oligomer by-products.

19. The method of claim 18 wherein the combining step further comprises combining a phase transfer catalyst selected from the group consisting of hexaalkylguanidinium alkane salts and α,ω-bis(pentaalkylguanidinium)alkane salts.

20. The method of claim 18 wherein the combining step further comprises combining bisphenol A disodium salt with the bis[N-(3-chlorophthalimide)] derivative of a diamine.

21. The method of claim 18 wherein the bis[N-(3-chlorophthalimide)] derivative is selected from the group consisting of 2,4- bis[N-(3-chlorophthalimido)]toluene, 2,6-bis[N-(3-chlorophthalimido)]toluene, 2,4-bis[N-(3-chlorophthalimido)]-3,5-diethyltoluene, and 2,6-bis[N-(3-chlorophthalimido)]-3,5-diethyl toluene.

22. The method of claim 18 wherein the combining step further comprises combining hexaalkylguanidinium chloride as the phase transfer catalyst.

23. A method for preparing a polyetherimide which comprises combining

a bisphenol A disodium salt;

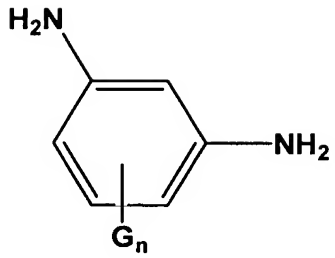
a bis[N-(3-chlorophthalimide)] derivative of a diamine;

a diluent selected from the group consisting of o-dichlorobenzene and anisole;

a catalytically active amount of a phase transfer catalyst; and

obtaining a polyetherimide,

wherein said bis[N-(3-chlorophthalimide)] derivative comprises the reaction product of a mixture comprising a 3-chlorophthalic anhydride; a 1,3 diamine of the formula



where n is 1 to 4, G is selected from the group consisting of -R, -OR, -SR, -Ar, -OAr, -SAr, and –CN, and R is selected from the group consisting of C_1 to C_{30} aliphatic hydrocarbons, C_1 to C_{30} unsaturated cycloaliphatic hydrocarbons, and aralkyl hydrocarbons.

24. The method of claim 23 wherein the bis[N-(3-chlorophthalimide)] derivative is selected from the group consisting of 2,4- bis[N-(3-chlorophthalimido)]toluene, 2,6-bis[N-(3-chlorophthalimido)]toluene, 2,4-bis[N-(3-chlorophthalimido)]-3,5-diethyltoluene, and 2,6-bis[N-(3-chlorophthalimido)]-3,5-diethyl toluene.

25. The method of claim 23 wherein the combining step further comprises combining the phase transfer catalyst selected from the group consisting of hexaalkylguanidinium alkane salts and α,ω-bis(pentaalkylguanidinium)alkane salts.

26. The method of claim 23 wherein the combining step further comprises combining hexaalkylguanidinium chloride as the phase transfer catalyst.